How **green** is your practice?

Neil Gallant[1] presents five ways to improve energy efficiency in your dental practice.

According to The Carbon Trust, the UK's healthcare sector spends over £400 million on energy per year. Rising gas and electricity bills, coupled with the UK's rather ambitious targets to cut greenhouse gas emissions by 80% by 2050 (based on levels in 1990), are forcing those in even the smallest dental practices to think more and more about their usage, and wastage.

Many will be wondering how they can possibly reduce their energy consumption, given the amount of high-tech equipment that is in constant use. But actually, there are plenty of ways that those working in the dental profession can do their bit to cut their carbon footprint and reduce their own costs in the meantime.

Read on for five top tips on how the dental profession can boost its energy efficiency from the inside out.

1) Go digital

Digital dental X-rays have transformed the way that dentistry works. It has made dental treatment safer and more convenient for patients, and it has also made the industry more environmentally-friendly. By converting to digital X-rays, many practices have taken the first important step towards being greener and more high-tech. Conventional X-rays, amongst other issues, also carry the risks associated with disposing of toxic materials and lead foils. Going digital helps to tackle energy efficiency on two levels; not only does it cut down on your costs, it reduces the amount of non-recyclable materials that you produce.

2) Watch your water

Given that the act of brushing your teeth alone uses a great deal of water, and that dental professionals must keep their hands clean at all times, dental surgeries are responsible for using a lot of water every day. One of the biggest culprits for this is the simple act of dental professionals leaving taps running while a patient's teeth are cleaned and when staff are washing their hands. By being strict with your water usage and only using it when needed, dental practices will find that they can save a huge amount of water over a relatively short period of time. This will reduce your monthly water bills and have a positive effect on the environment.

3) Step up your waste management

For any medical or healthcare organisation, waste management is a big issue. There are numerous ways that dental practices across the UK can cut down on their waste and their carbon footprint at the same time.

[1] *Neil Gallant is the owner and Managing Director of Neutronic Technologies Ltd. Neutronic specialises in providing maintenance and repair services to a broad range of manufacturing companies. They also place particularly strong emphasis on supplying products that help organisations to green-proof their operations*

The first step is to ensure that your waste is being managed properly. Having separate bins for your general waste and clinical waste is key as it ensures that all refuse is dealt with in the most efficient and cost-effective way possible. Also, speak to the company that collects your waste, both medical and general, and question how it is disposed of. Nowadays, many companies will operate an 'energy from waste' policy where waste streams are recycled or the waste is disposed of in a way that turns energy into heat or electricity.

amalgam used in the dental industry is recycled and then returned to manufacturers in order to be used again. However, not all amalgam that is used in dental practices undergoes this process and steps must be taken to ensure that it does not enter the water supply. As part of a practice's efforts to become more energy efficient, fitting an amalgam separator to dental chairs and filters under sinks can ensure that every trace of mercury is collected and disposed of properly.

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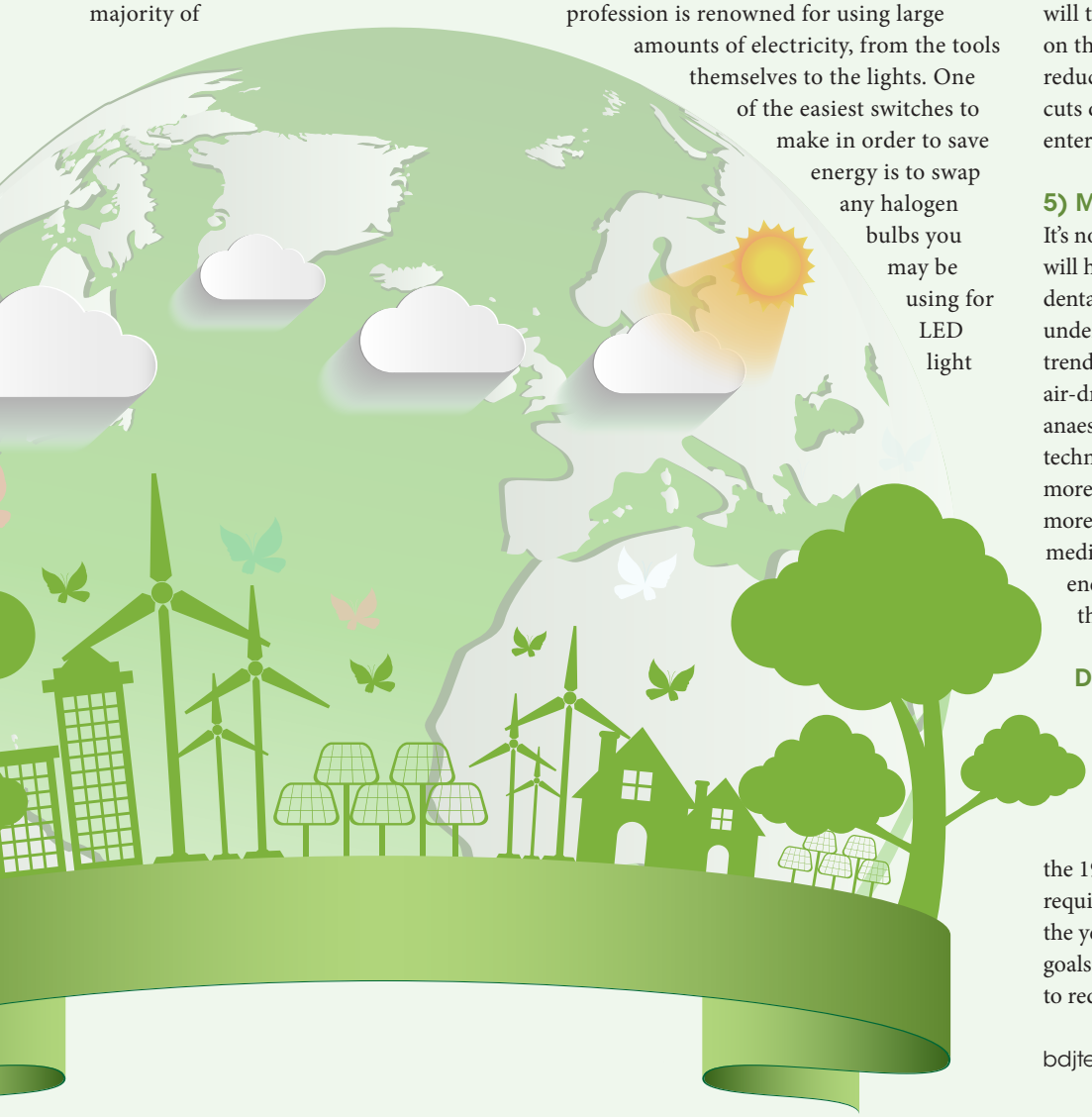
The biggest waste problem in the dental profession, or at least the one that has the largest environmental impact and potential for harm, is amalgam. Admittedly, the majority of



4) Make simple changes

Even some of the simplest changes in a dental practice can actually save tremendous amounts of energy. The dental profession is renowned for using large amounts of electricity, from the tools themselves to the lights. One of the easiest switches to make in order to save energy is to swap any halogen bulbs you may be using for LED light bulbs, as these can use up to 75% less energy than incandescent ones. They also last much longer, meaning you don't have to spend as much money on replacements in the future.

More and more dental practices are now exploring the use of waterless vacuum systems, a practice that first emerged in the United States. According to the International Academy of Biological Dentistry and Medicine, waterless vacuum systems can save approximately 300 to 500 gallons of water per day for each dentist. Not only will this help dental practices to cut down on their water bills, but it also drastically reduces the amount of water wasted and cuts down on the risk of contaminated water entering the main supply.

5) Make high-tech changes

It's not just the suggestions made above that will help to drive energy efficiency amongst dental practices. The dental profession has undergone some major technology-driven trends over the past few years, including air-driven hand pieces and the use of local anaesthetics to name but a few. And as technology develops faster and becomes more innovative, it is likely that we will see more energy-efficient methods and pieces of medical equipment that will not only improve energy efficiency, but it will also enhance the quality of care given.

Doing your bit

The UK already had some extremely ambitious green targets in place, but following the COP21 Climate Talks that recently took place in Paris, there were discussions of a new target for the 195 countries that attended, which would require net-zero greenhouse gas emissions by the year 2050. If the world is to achieve these goals, then it is up to everyone to do their bit to reduce their carbon footprint.

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